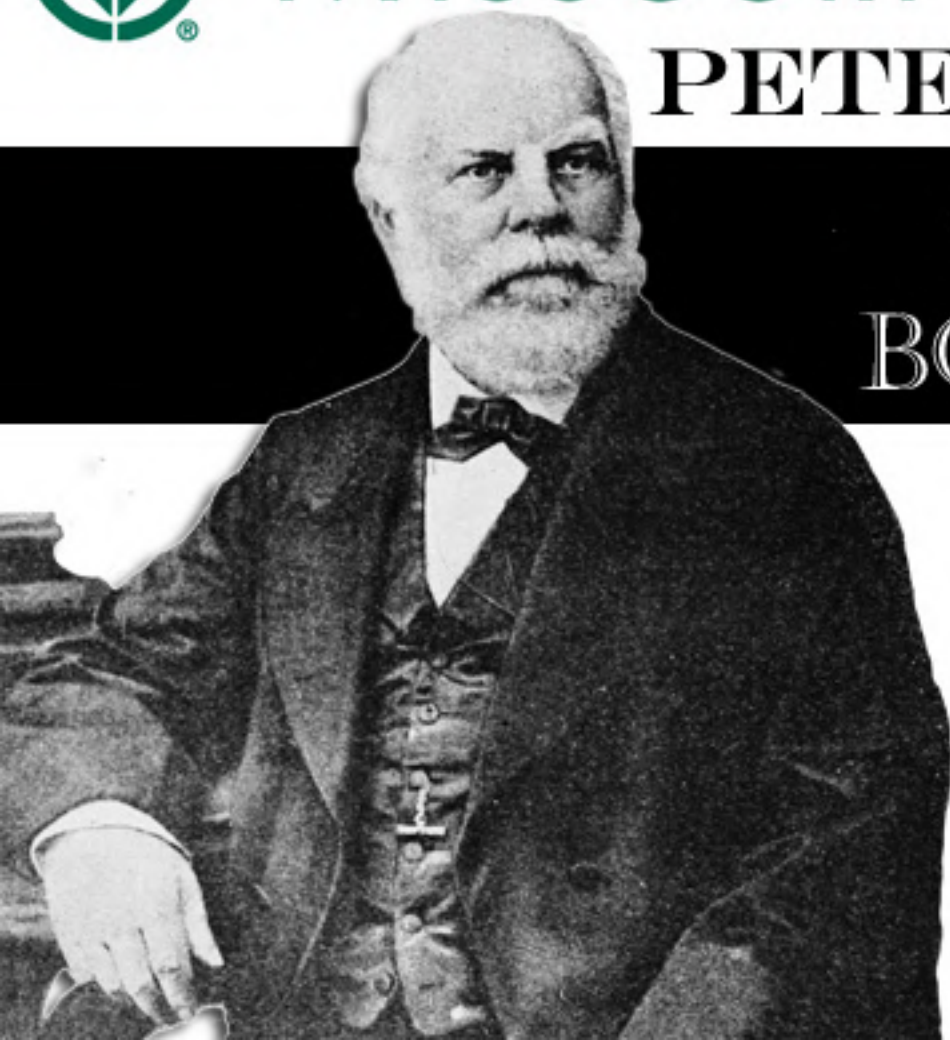


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GEORGE ENGELMANN
BOTANICAL NOTEBOOKS



Pagination Note:


Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

Colorado 1884


Melipha multiflora seed mostly suborbicular

2 lines long; wide wing ($\frac{1}{3}$ to $\frac{4}{5}$ ~~the~~
the width of the seed itself)

tubercles ^{circles} - seed surrounded by a
ridge or peristome rim

(in pl. Wright 213 only 1.3 lines) 
(in pl. Mex. Gray. 50 x 100 wing half as wide as
seed - tubercles oval, not ~~surrounded~~
marked on edge

M. nuda seed same size and shape

tubercles ^{circles} surrounded by a low ridge
marking the cell lines 

in the Las Vegas plant the tubercles are = multiflora
in Texas N. Mex. do



0 1 2 3 4 5 6 7 8 9 10

cm

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MISSOURI
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GARDEN

3626

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(CIRCULAR.)

California Academy of

The Council of the California Academy of Science inform the societies corresponding and exchanging with have prevented their printing the Proceedings of this

During the commercial depression which has prevailed for seven years, the Academy has keenly felt the loss in endeavoring to keep alive the interest of its members, keep open its museum to investigators and visitors, in necessity.

It was impracticable to publish the proceedings of the members have persevered in their work, and



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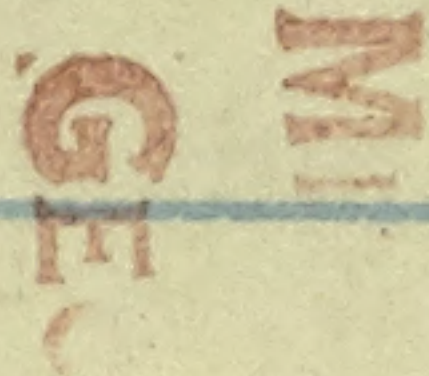
10

cm

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GARDEN

Mentzelia triangularis, prostrate, leaves
flowers 5^m diam yellow, open in morning -
oval entire petals as long as leaves. Sepals
15 stamens.



Sant Anita Mts, Sept 26 1886



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GARDEN

3627
Sagittaria - May - 10
- Polypogon - May - 10
- Bromus - May - 10
F. 1 Oct 3 2400 - 1000



0 1 2 3 4 5 6 7 8 9 10

cm

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Munhulia seeds x 10

Feb 28 1882

x 10

pumila

nuda

multiflora

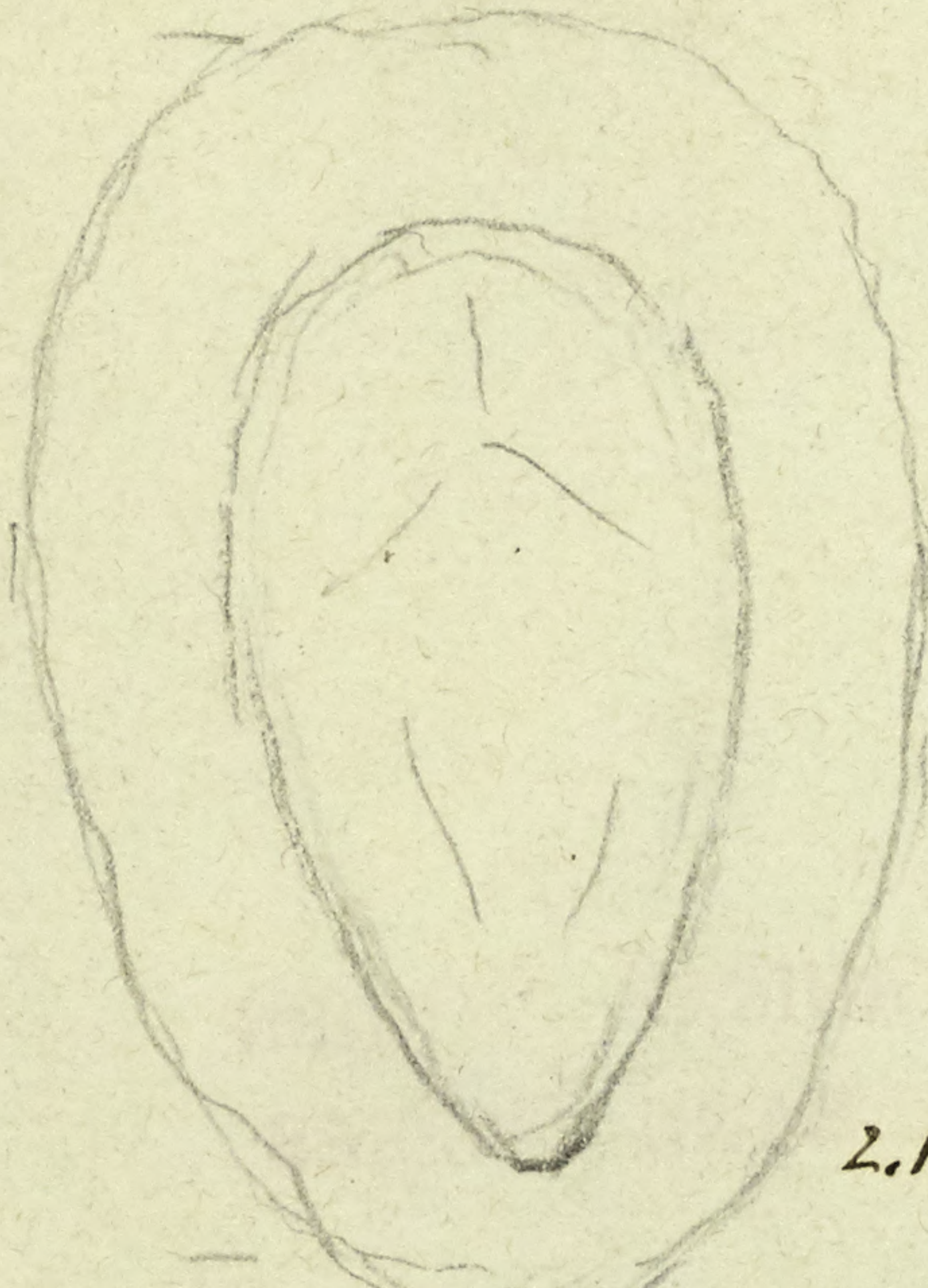
wide wing $\frac{1}{3}$ to $\frac{1}{4}$ of seed

multiflora



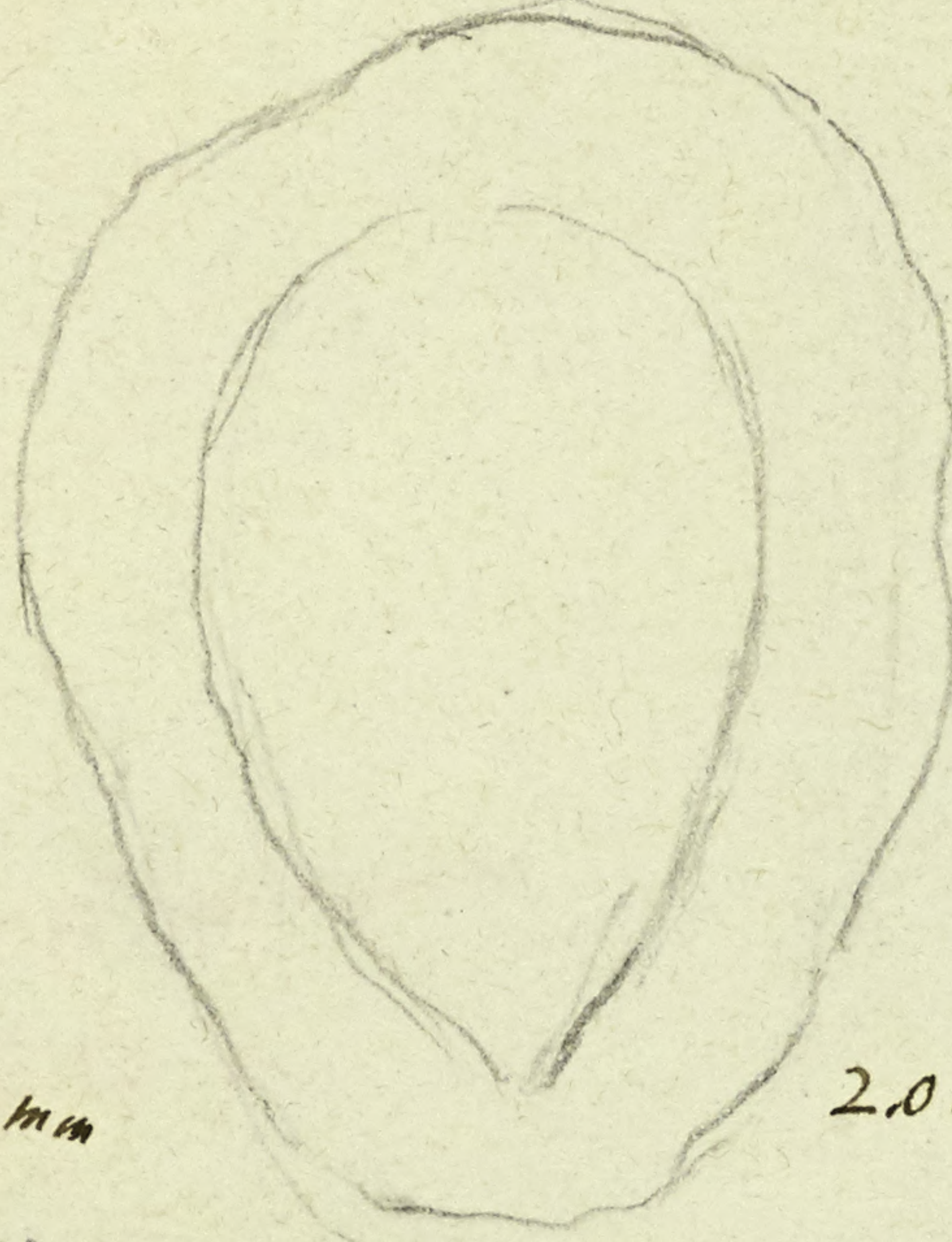
1.3 mm

yellow
Wte Pass



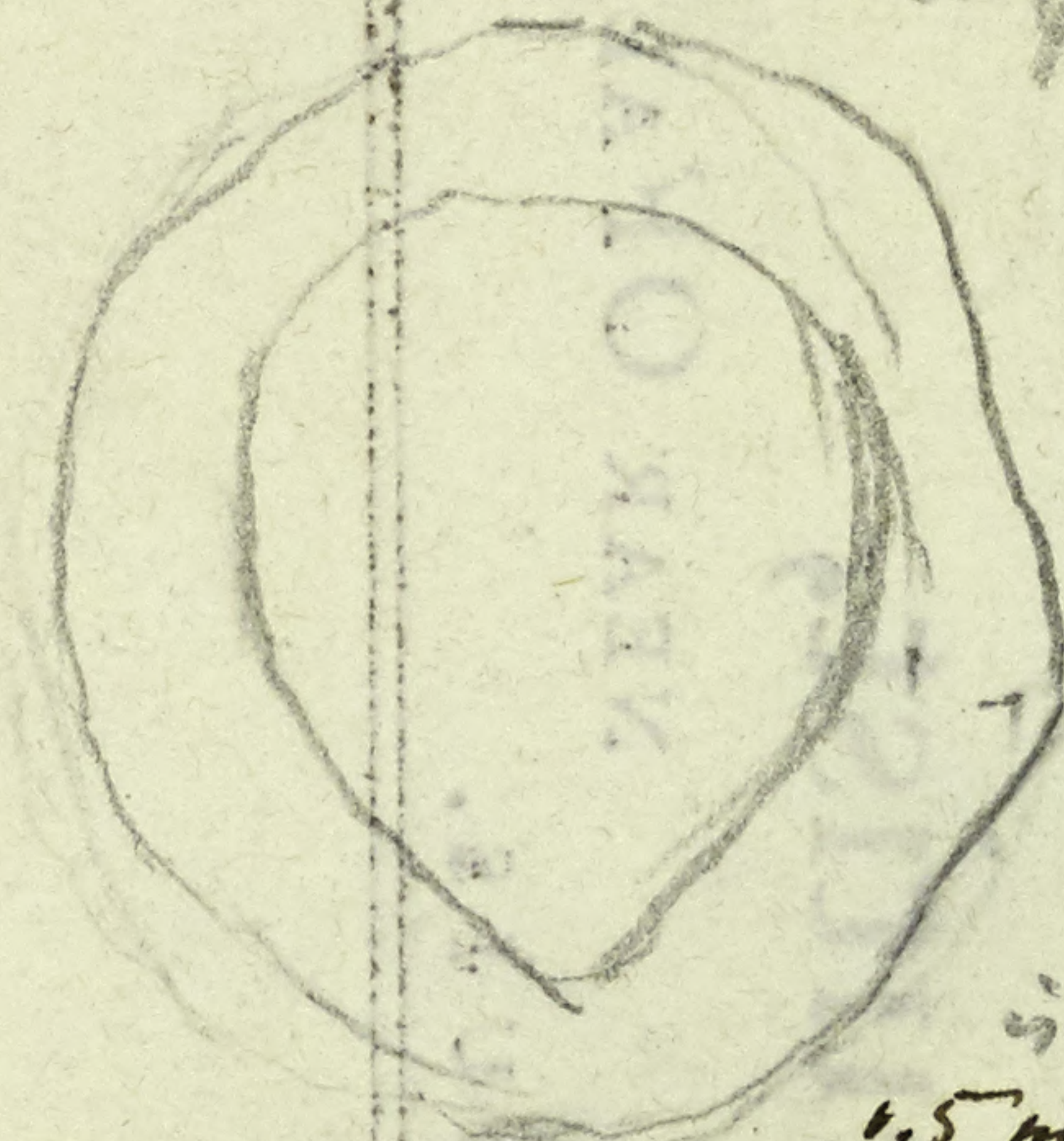
2.1 mm

Hot Springs, Canon City



2.0 mm

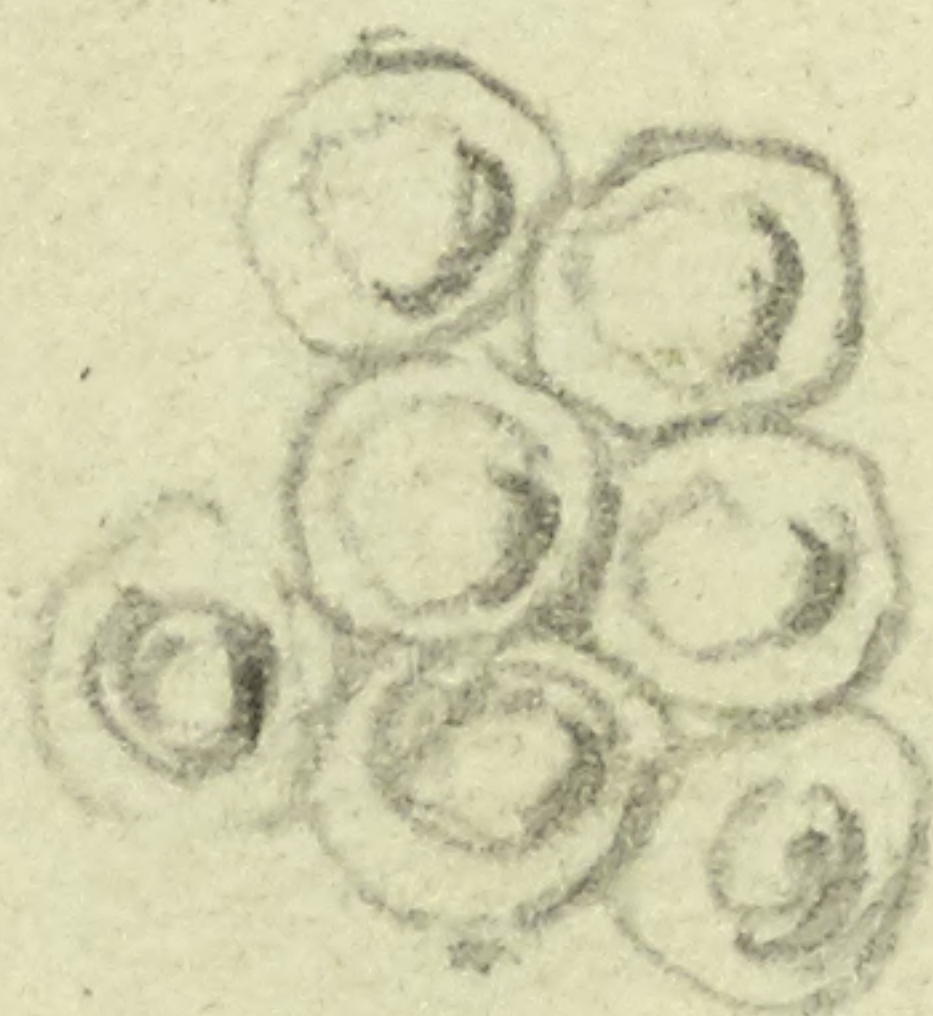
Las Vegas



1.5 mm

Grape Creek
Canon City
1881

x 150



x 150



surface of seed

x 150



0 1 2 3 4 5 6 7 8 9 10

cm

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JAMES MCBRIDE,
Pharmaceutist,

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WILLIAM ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

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Muhlenbergia
ornata

Pollen x 415

Muhlenbergia n. sp.
Multiflora

Jan 28 1882

0.040

0.045

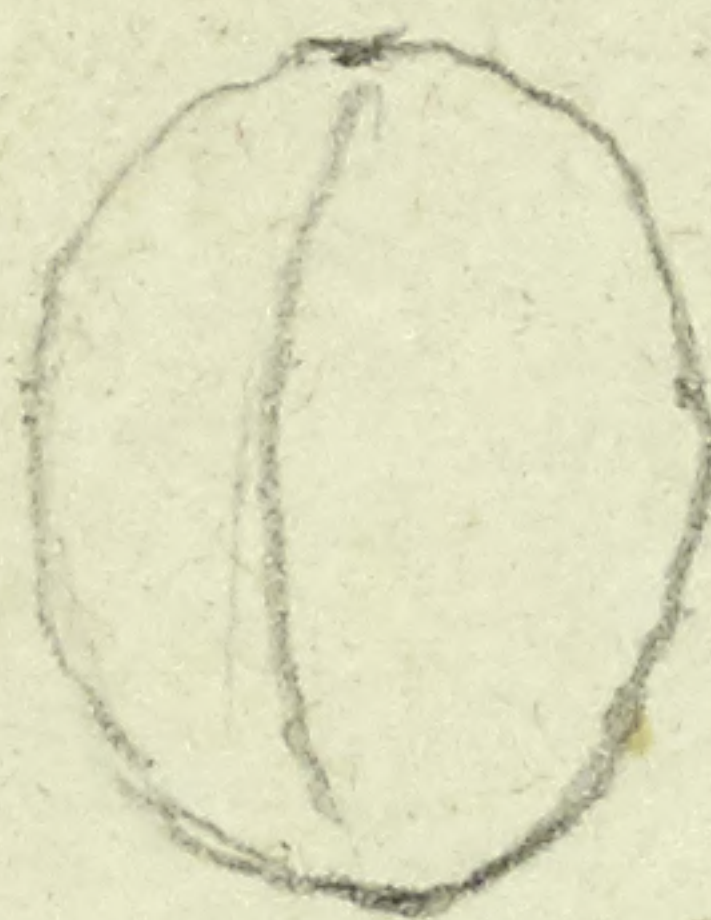
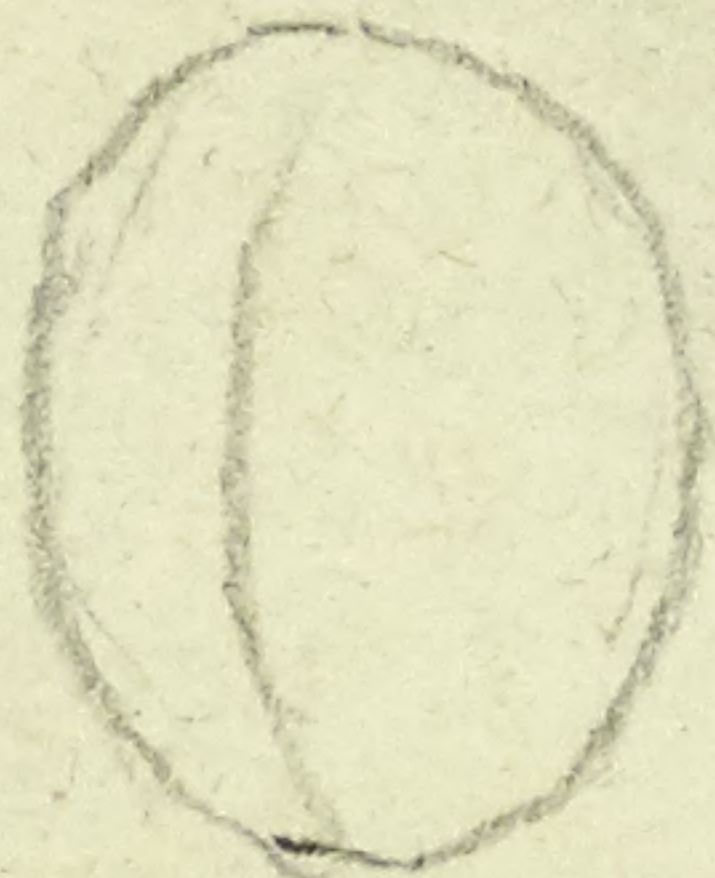
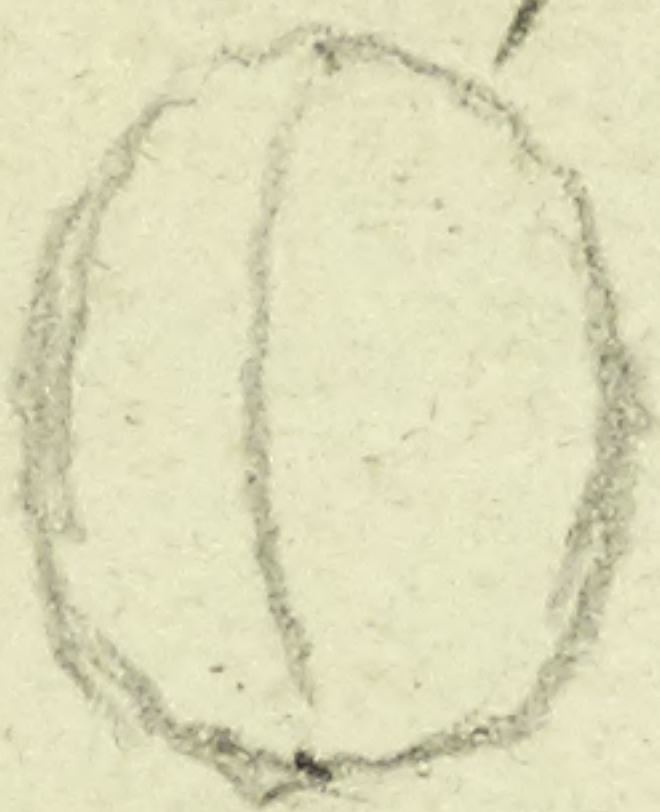
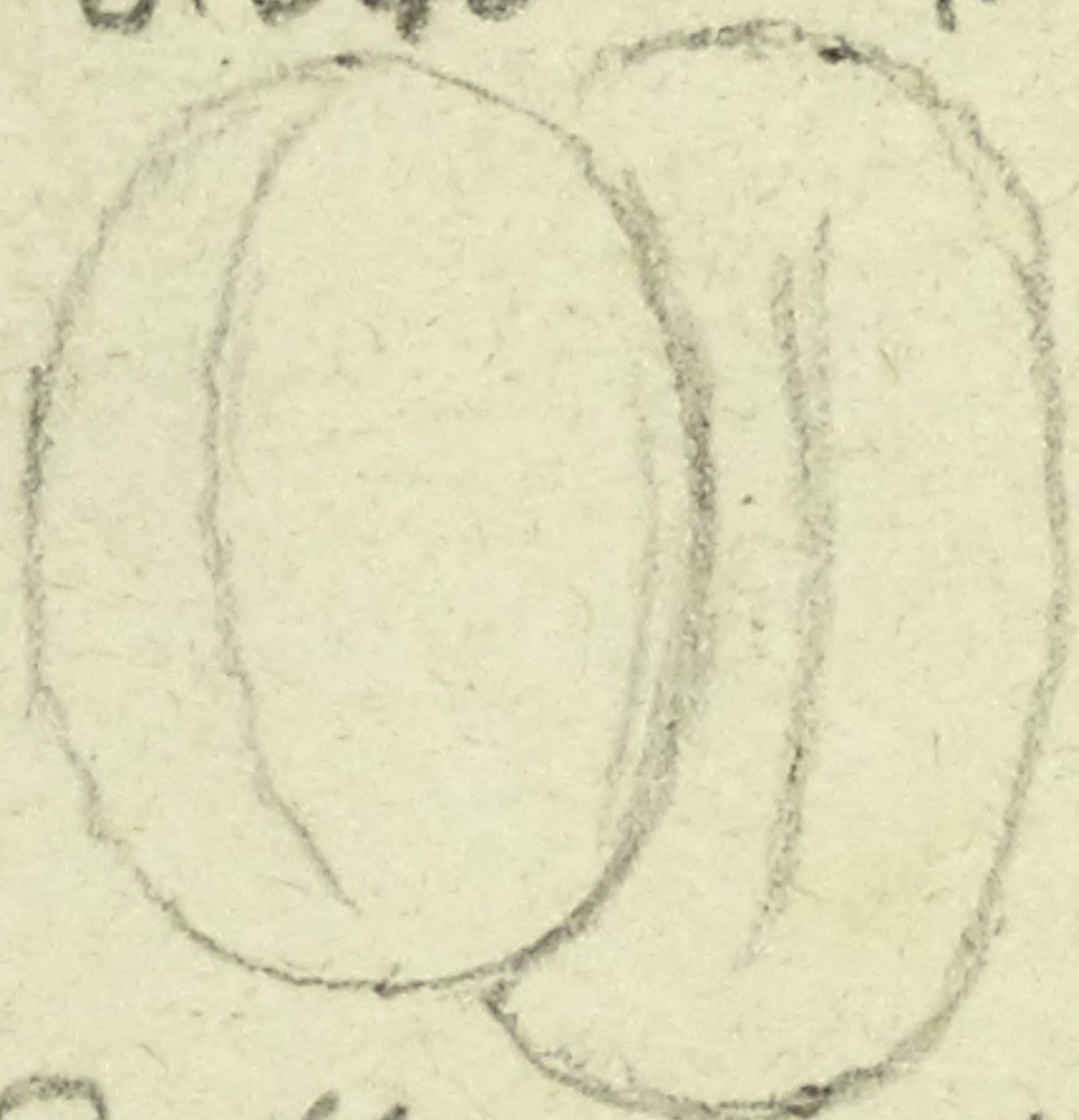
nuda
0.029

multiflora
0.034

nuda
0.029

0.034

0.033 mm



Pueblo

Missouri

Hot Springs

Canon City

Grape Creek

Canon

Las Vegas

(white)
Nite Pass

Anthers

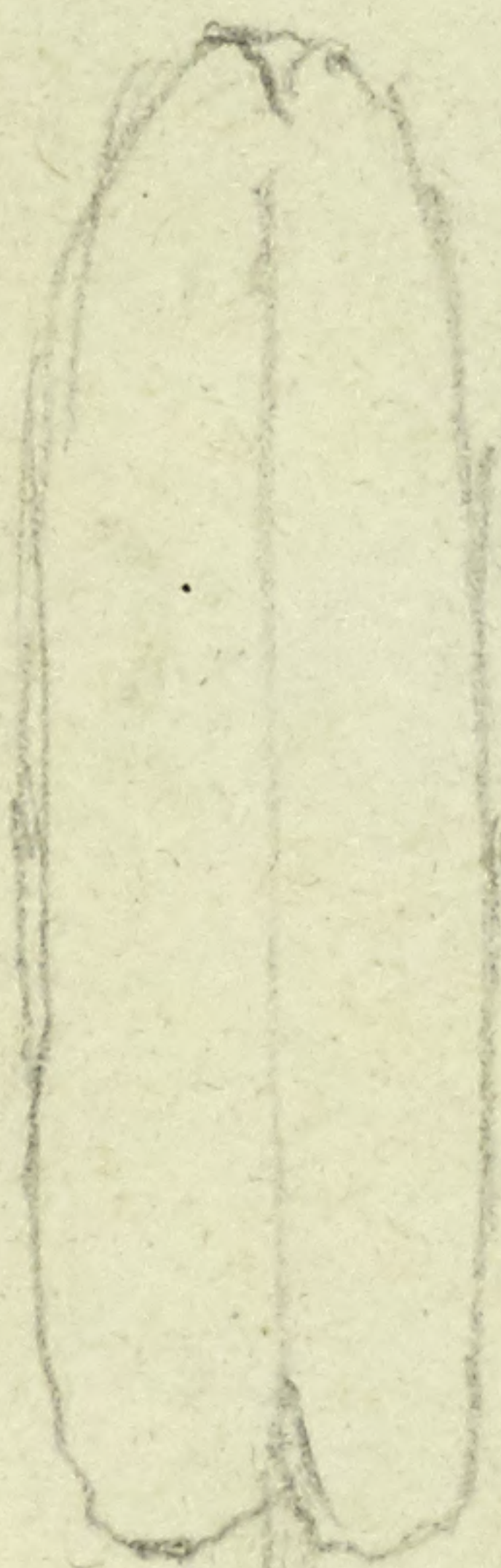
Anthers x 20



(yellow)
Nite Pass



2.4 mm



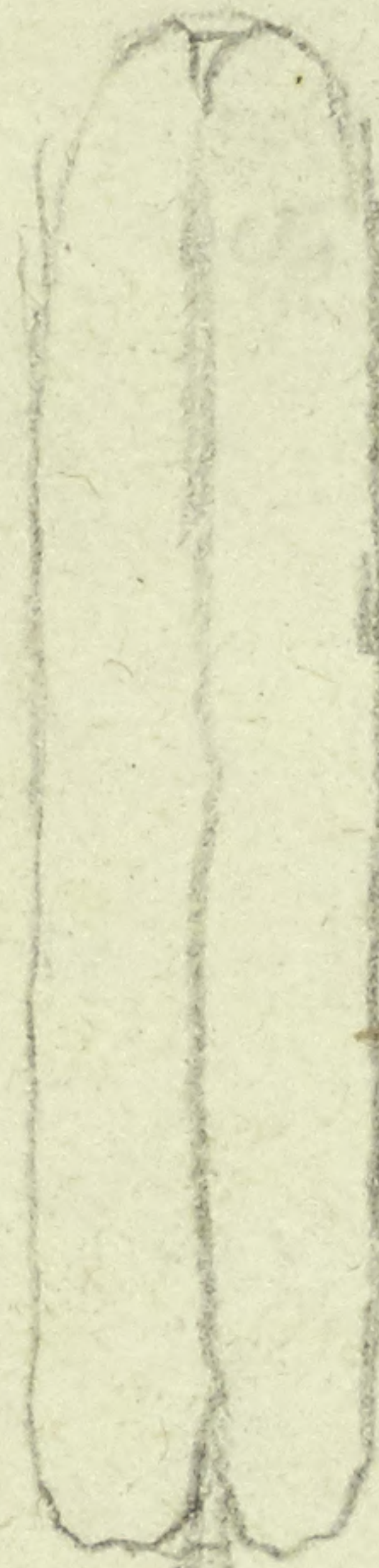
1.8 mm



1.0 mm



1.2

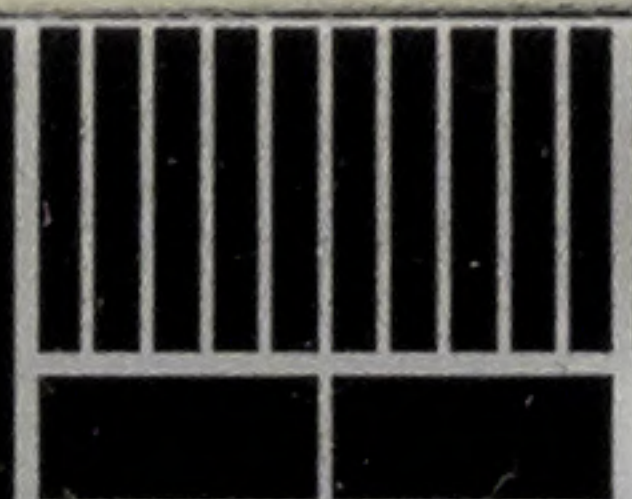


2.0



1.3 mm

most of the
Pollen grains do
not develop in water
but this yellow one
did frequently
into a tetrad



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cm

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SAINT LOUIS.
NEAR OF ALLON,

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

3629



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cm

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Menzies' seeds x 10

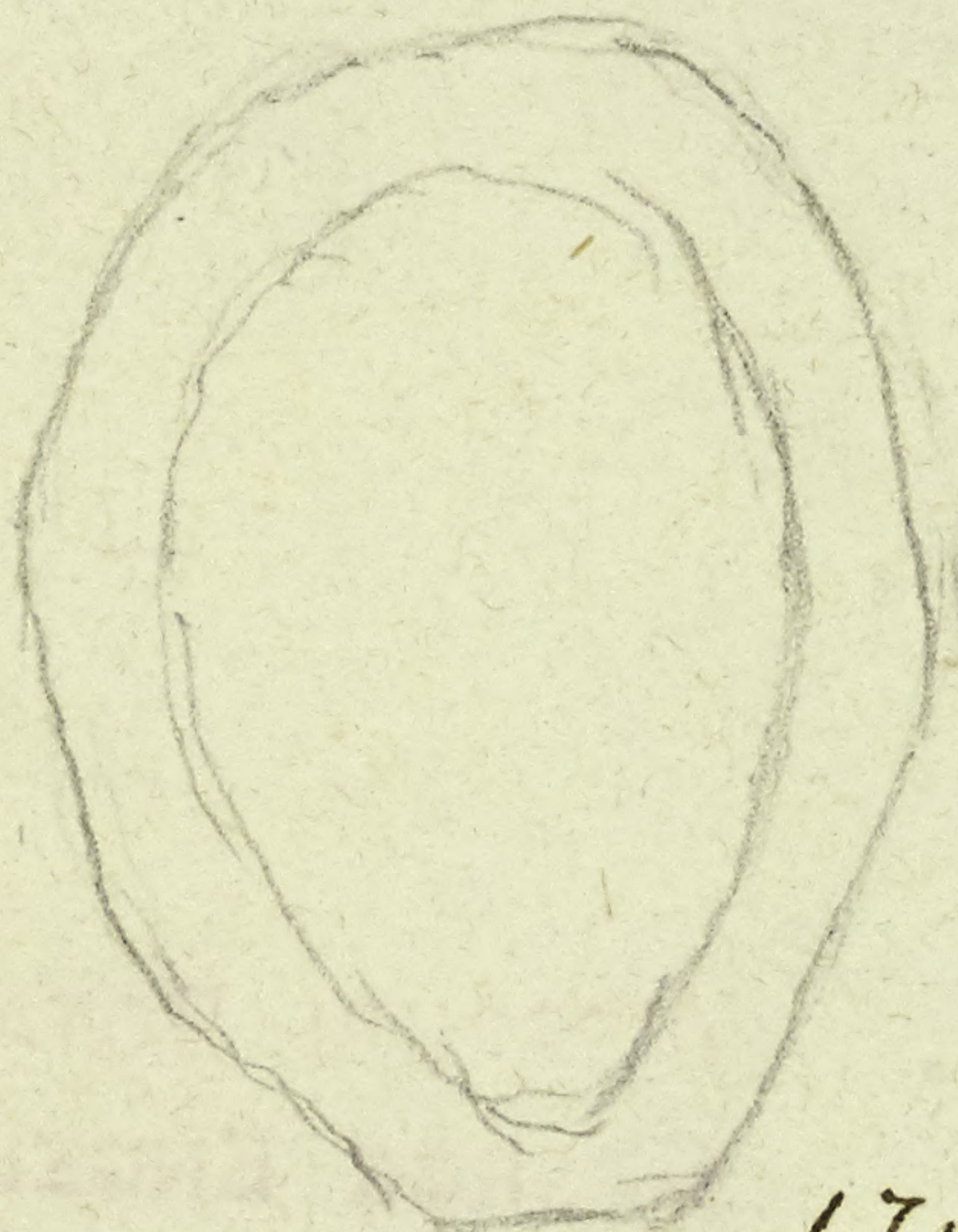
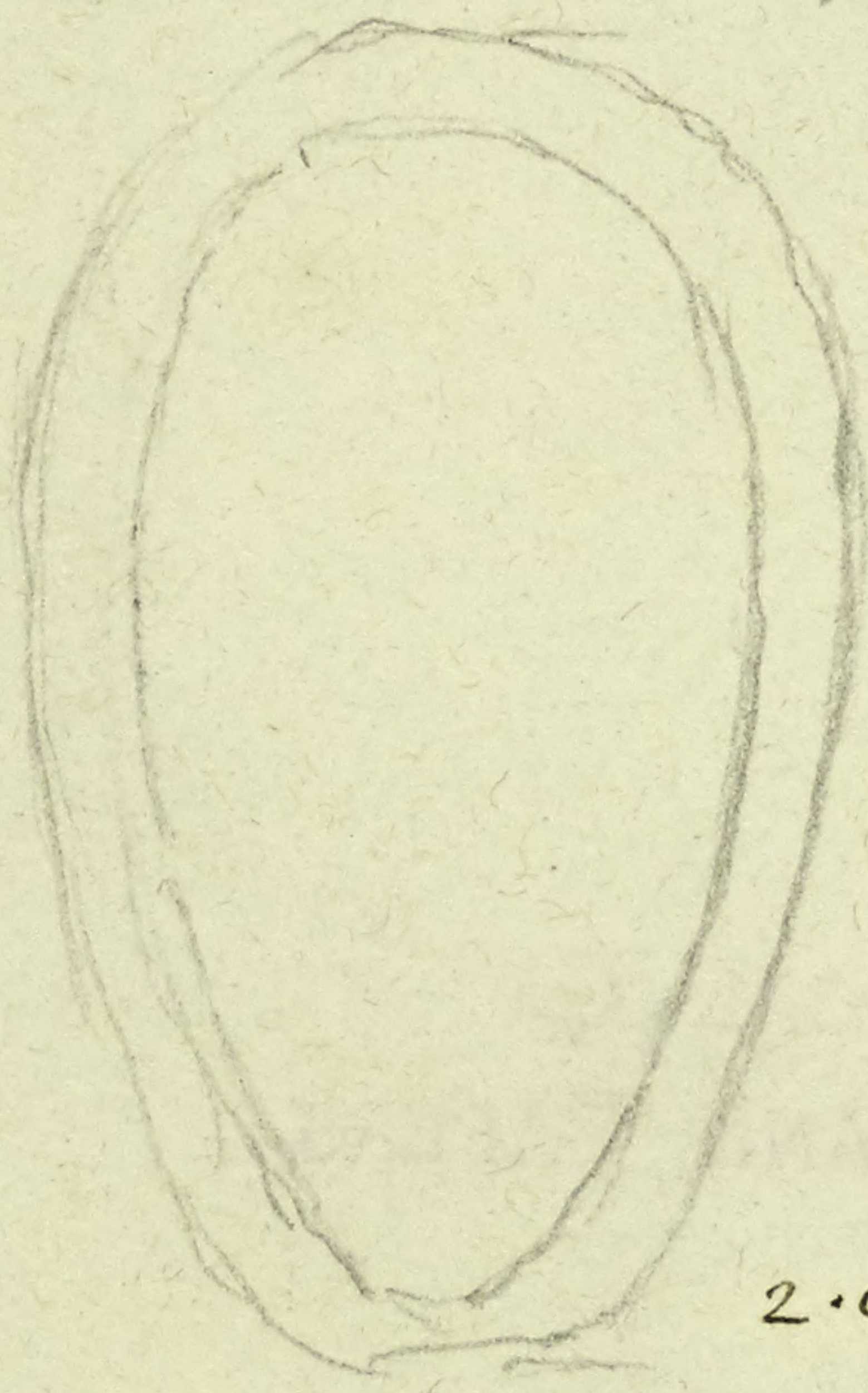
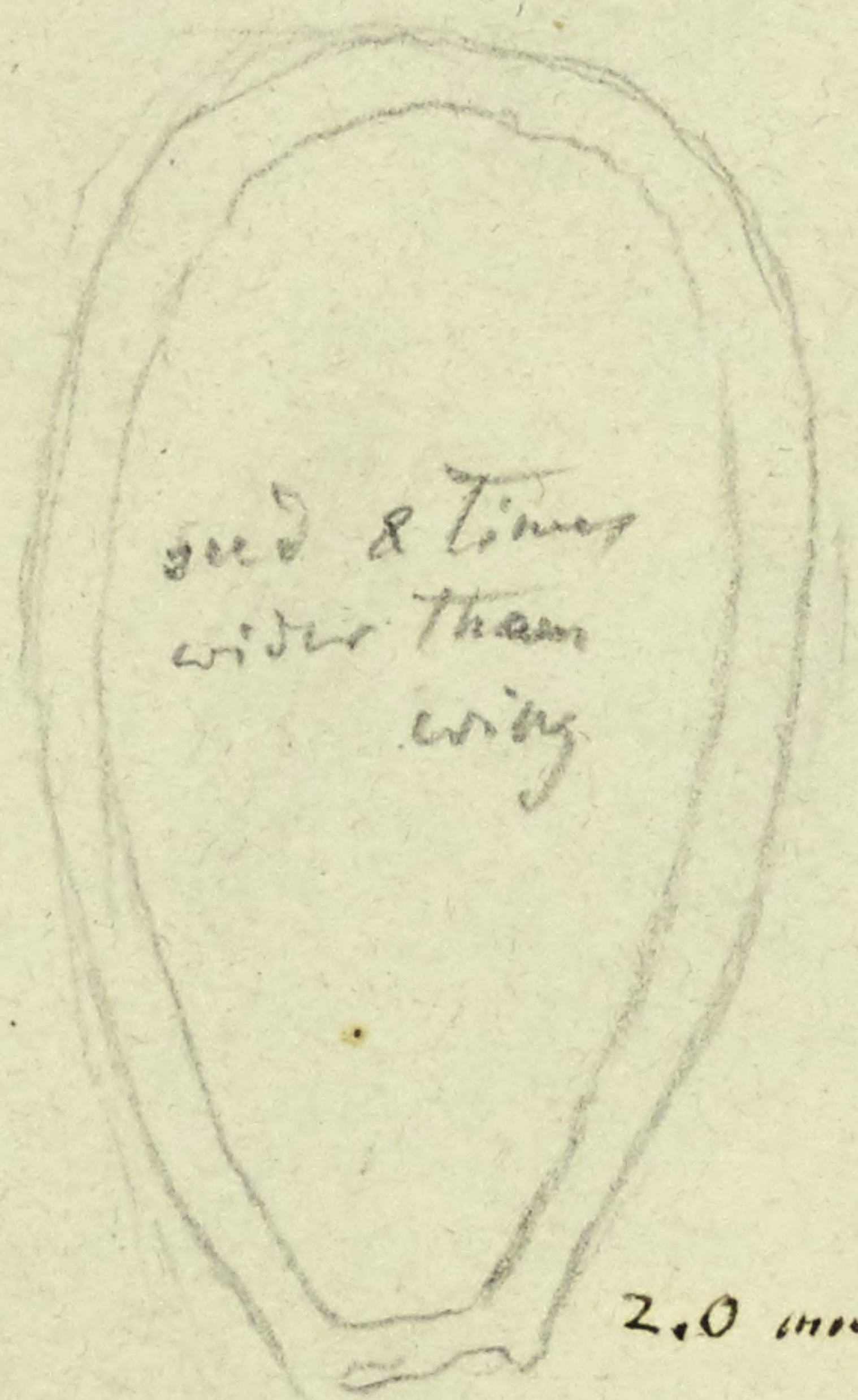
March 1st 1882

ornata
Pueblo

undulata " sp.
White water, Cal

laevicaulis
California

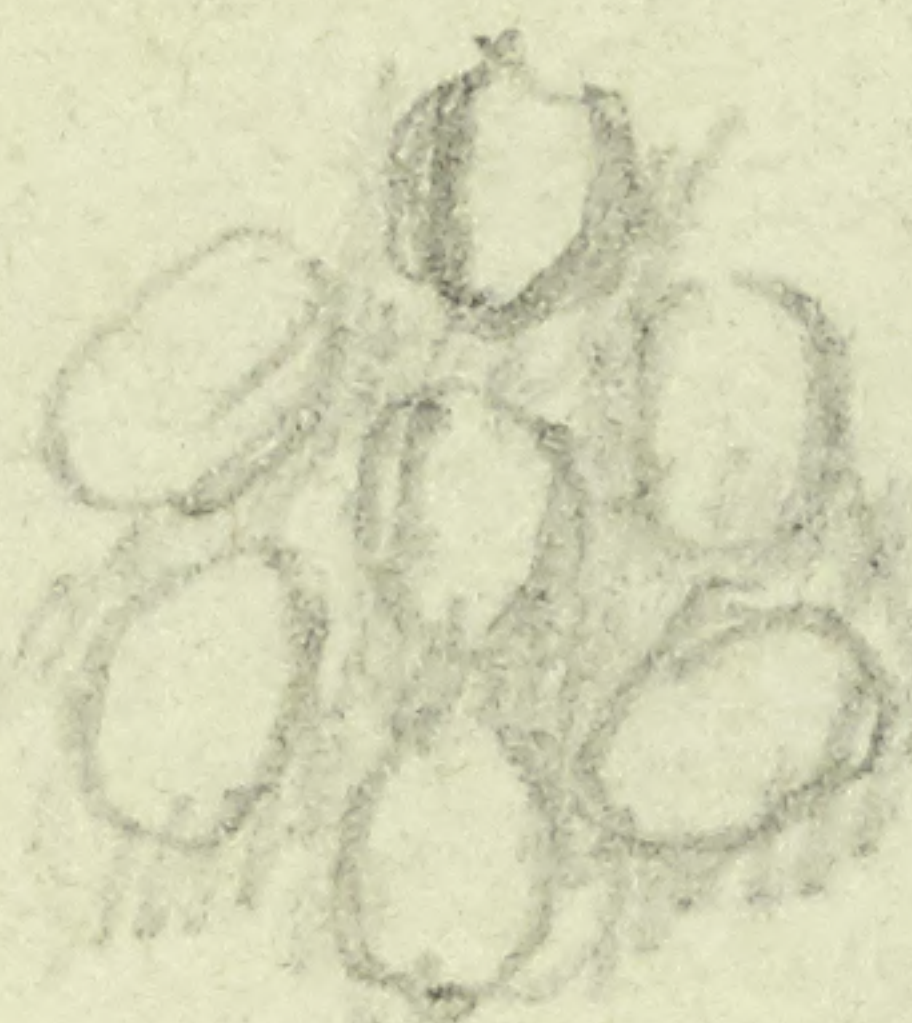
chrysantha
Canon City



1.5 mm

narrow wing $\frac{1}{5}$ to $\frac{1}{6}$
of width of seed

x 150



0

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cm

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Muhlenbergia

March 1st 1882

undulata
nsp

laeviuscula

tricuspidata

chrysantha

~

0036

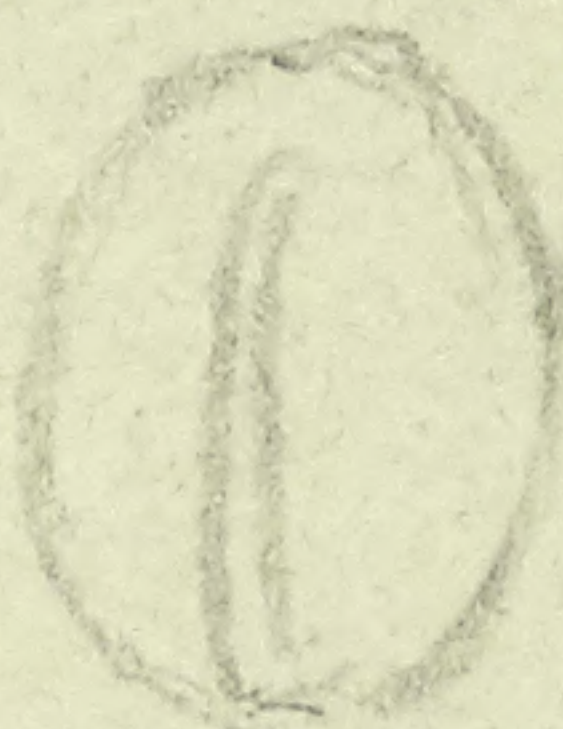
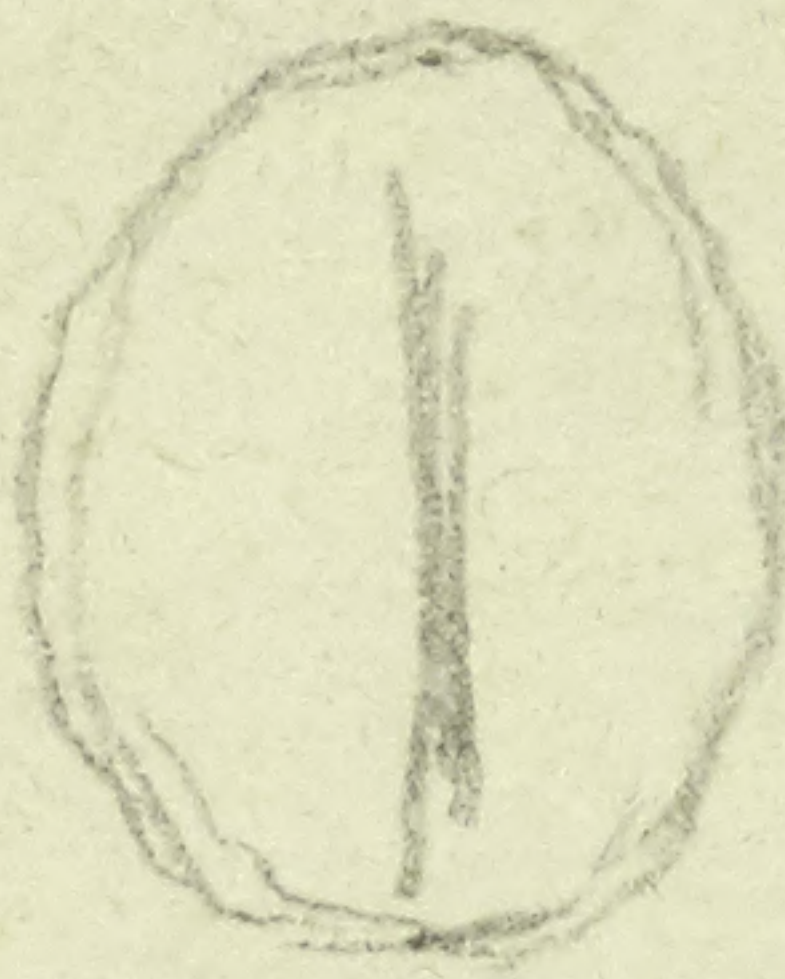
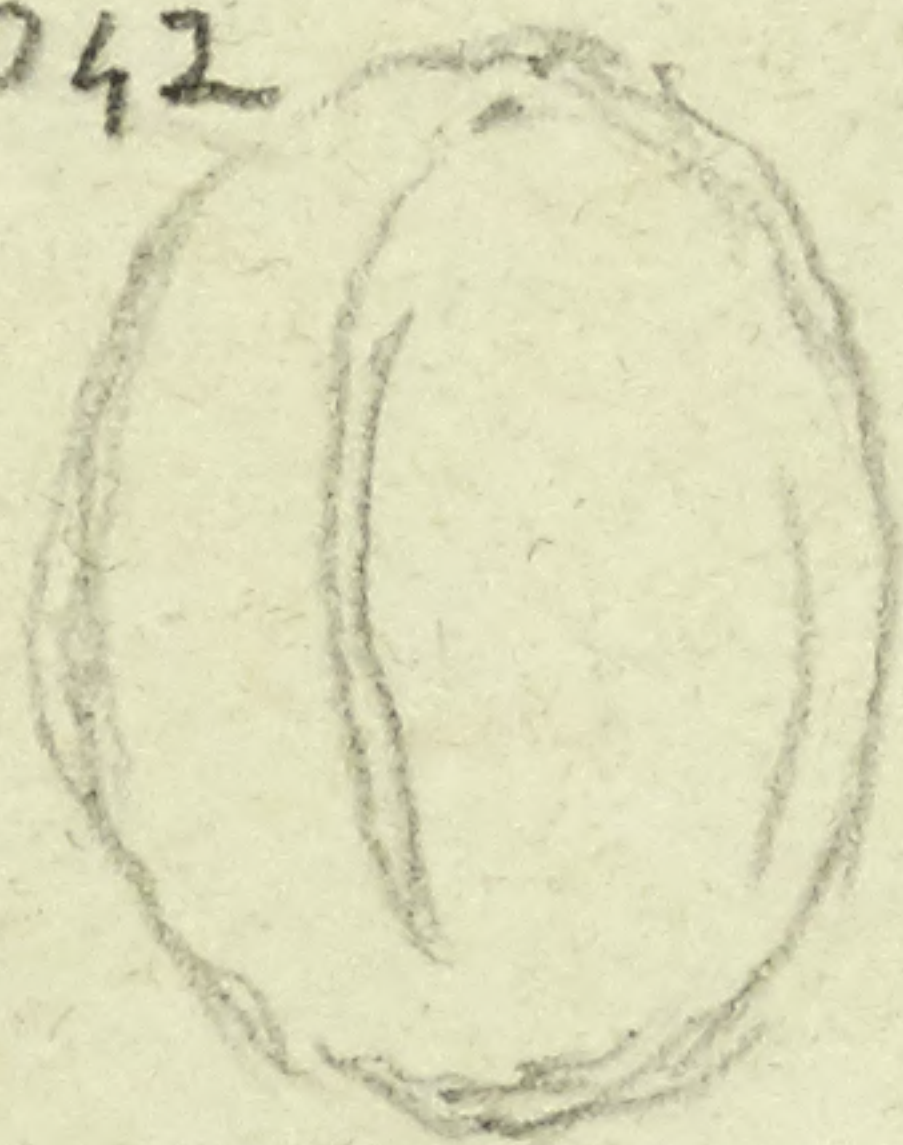
0.043

0.042

0.036

0.026

0.027



White water
Calif

Calif 1880

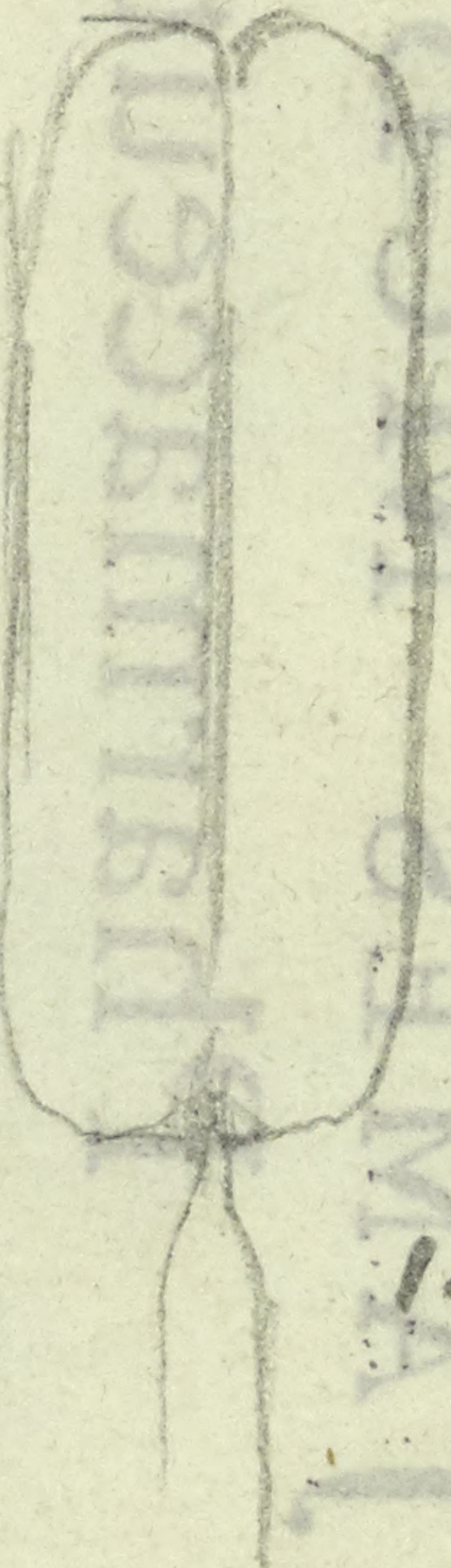
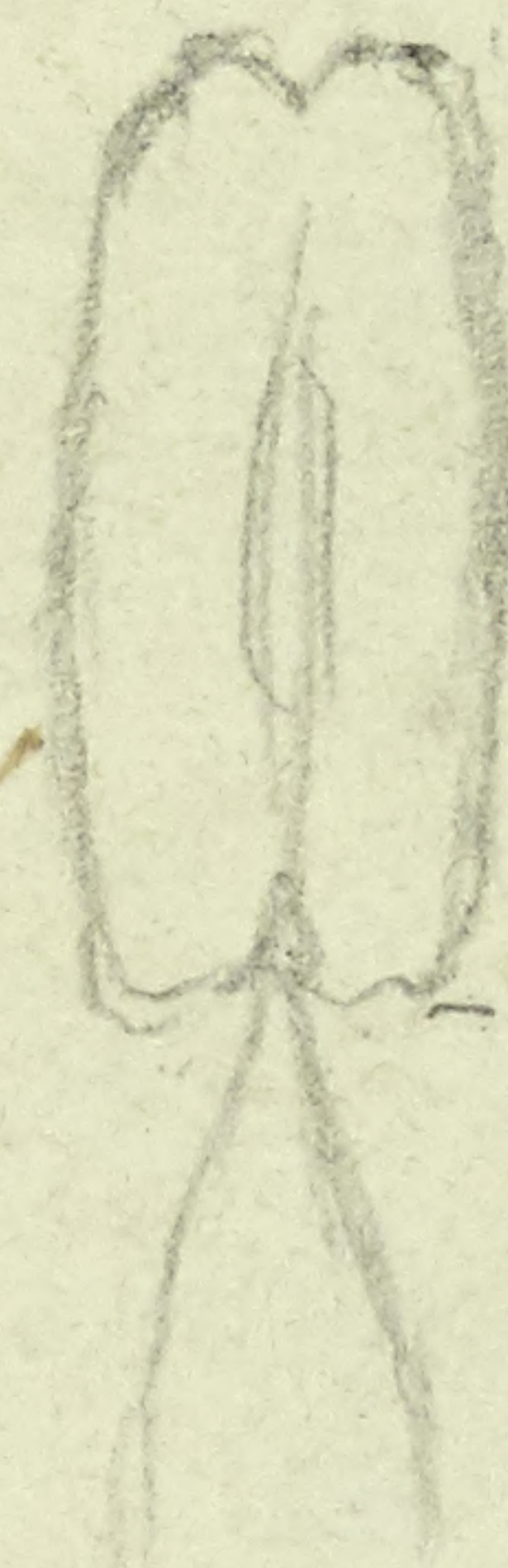
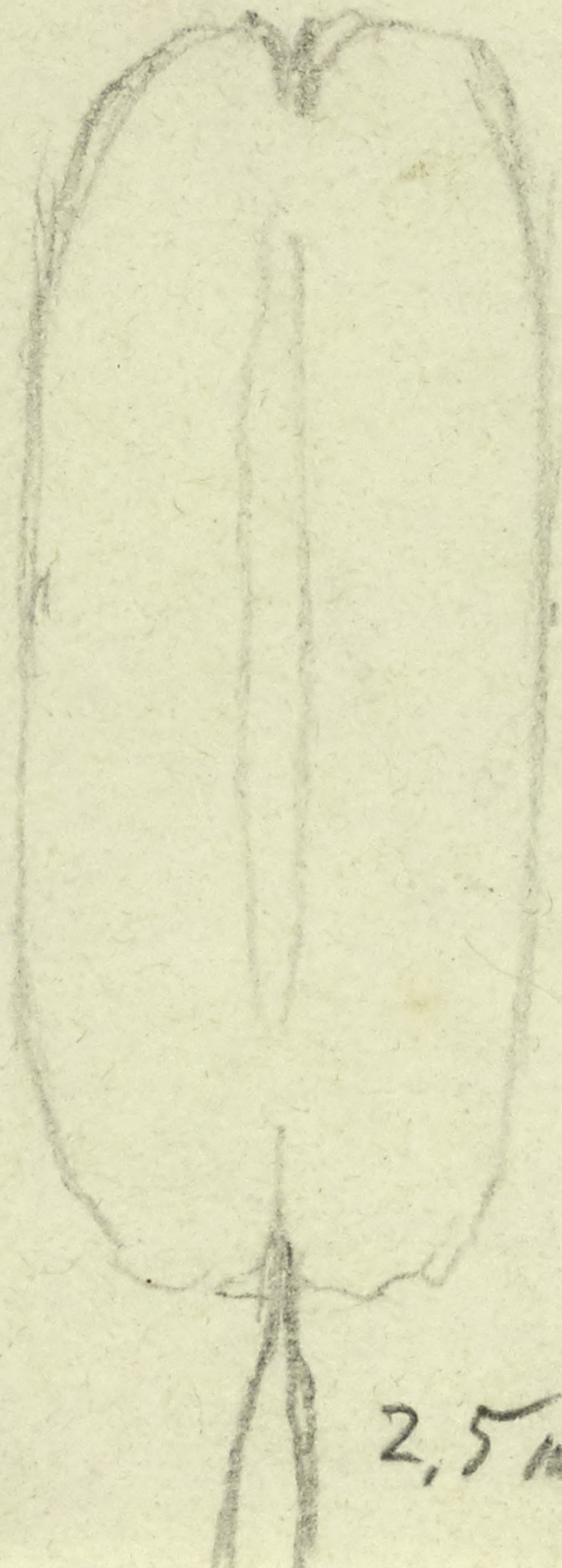
Calif.

Canon City
1874

Idaho
1875

Utah Ferry
No 78 1876

x 20



2 mm

2.5 mm

2.3 mm

1 mm

1.3 mm

1.7 mm

anther not notched



0 1 2 3 4 5 6 7 8 9 10

cm

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cm

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Menziesii Anthems and Pollen

March 2 1882

Pollen x 415

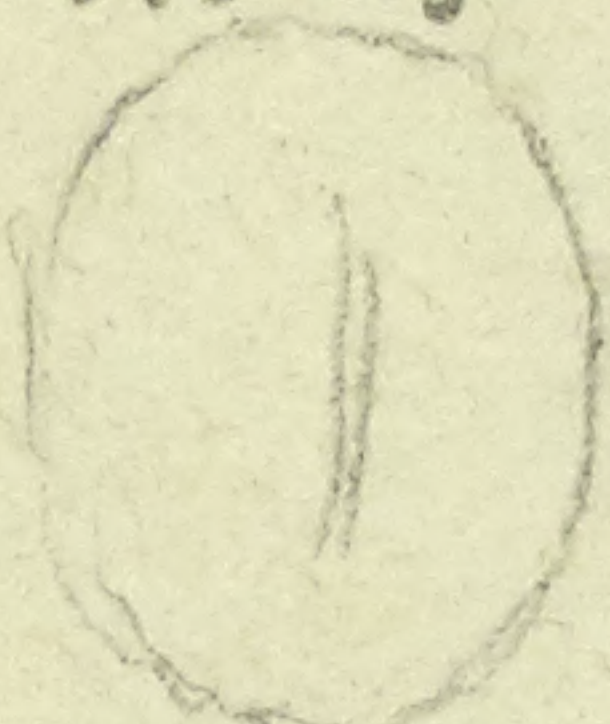
0.028 mm



pumila, Middle
Patterson Park

anthers x 10

0.028



Lindleyi
cult. Short

0.022

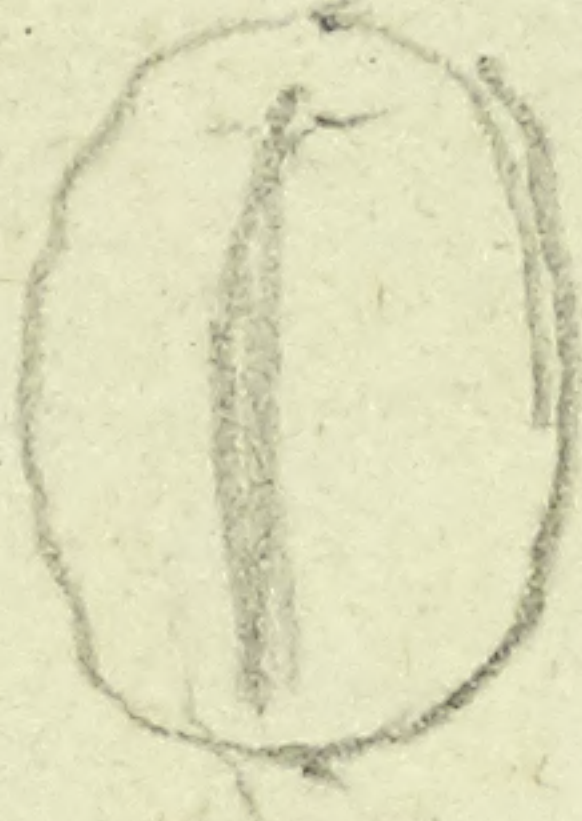


0.029



nuda
Mammis
Terry

0.030



nuda
Terry

0.030



multiflora

in Mexico

Fendler 242

subulate bracts

0.036-38



multiflora?

Mexico

Grey 101

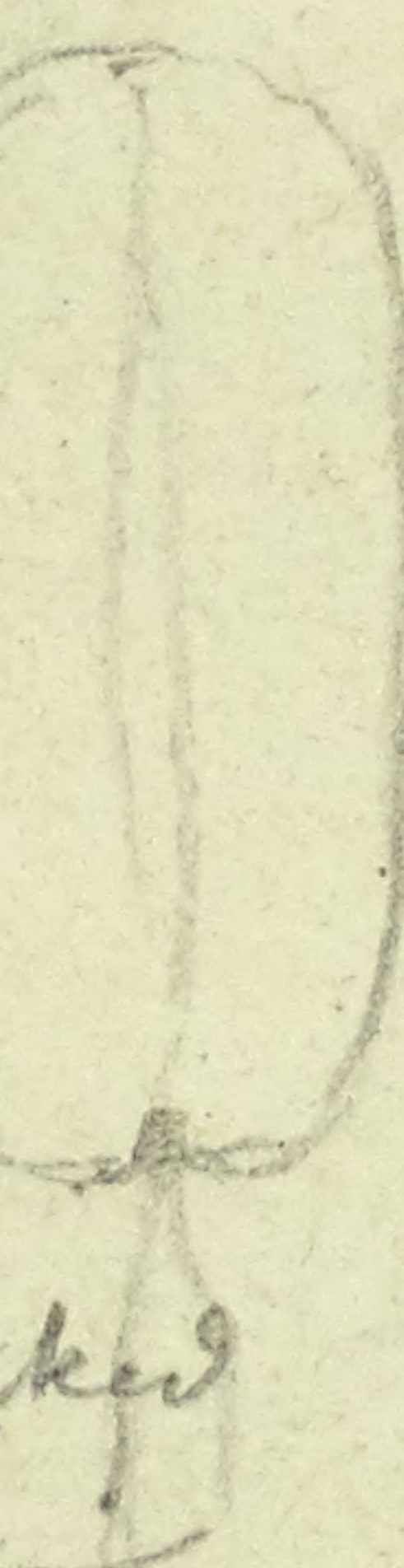


1.1 mm



dry

saturated



1.1 mm



1.5



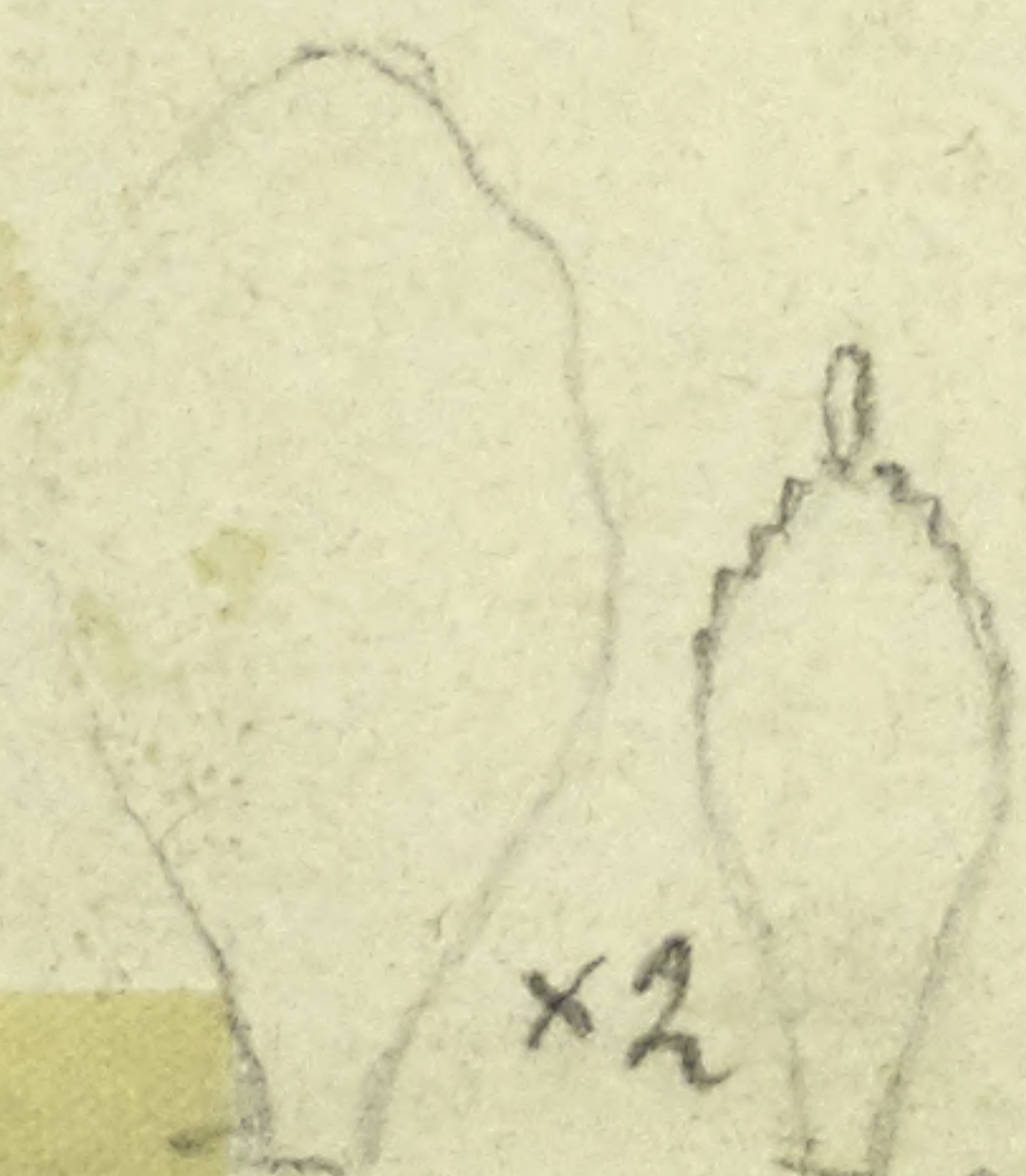
1.4



1.4

bracts linear

x2



5-6 petals 5-6 outer stamens



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cm

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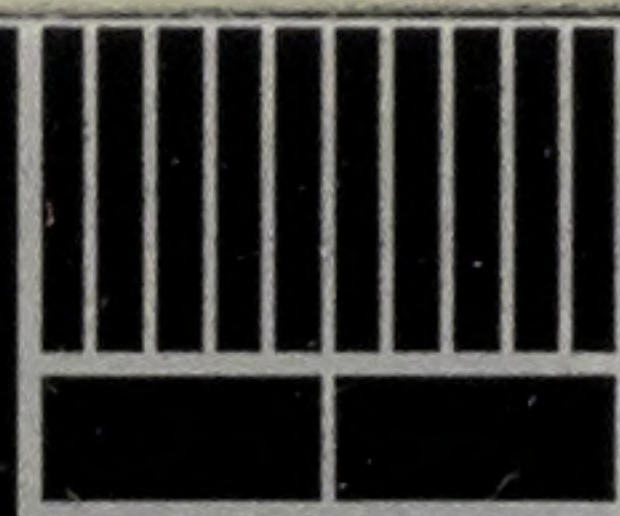
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0 1 2 3 4 5 6 7 8 9 10

cm

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Menziesia seeds x10

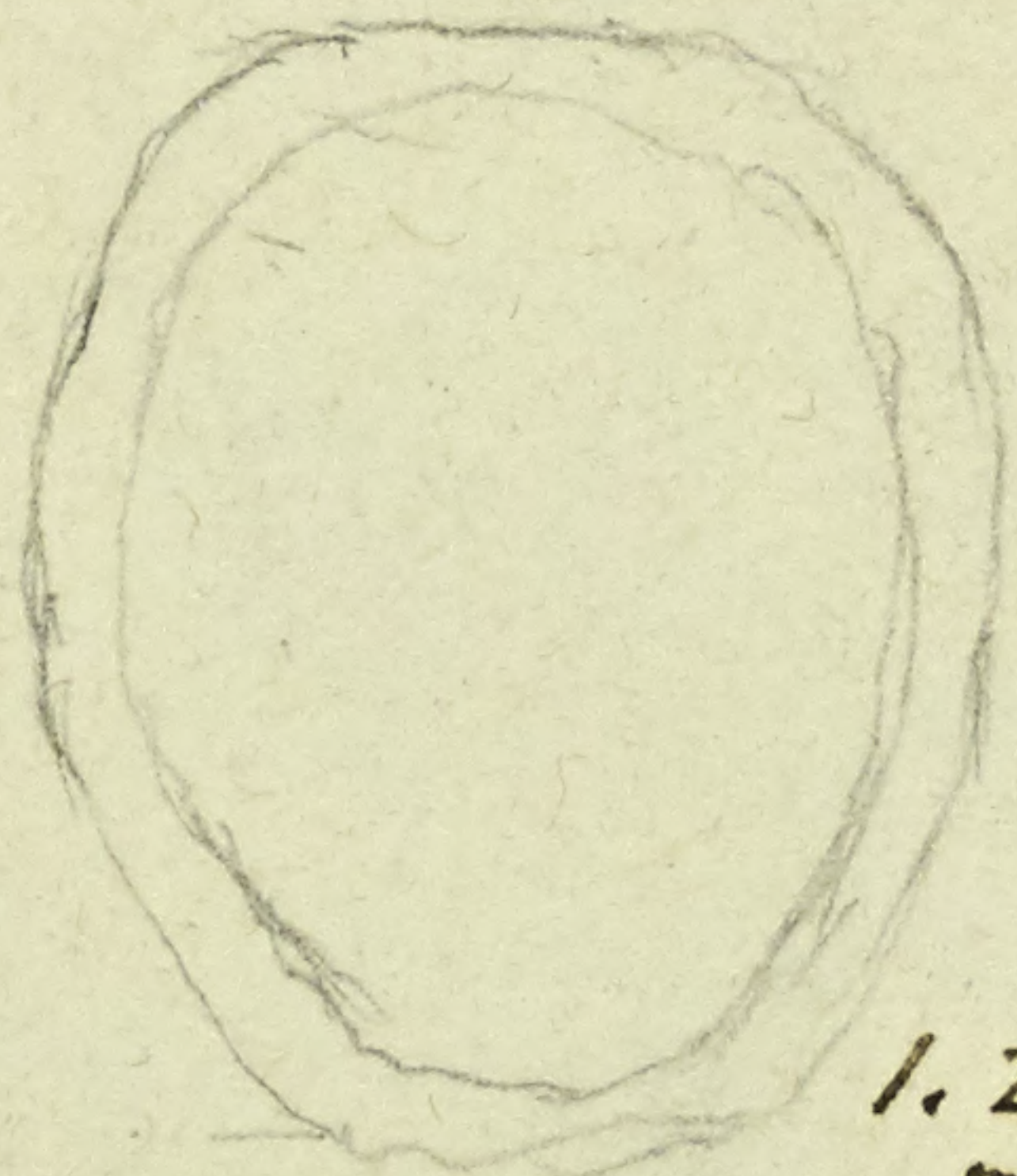
March 2 1892

M. pumila Nutt

nuda

nuda

nuda



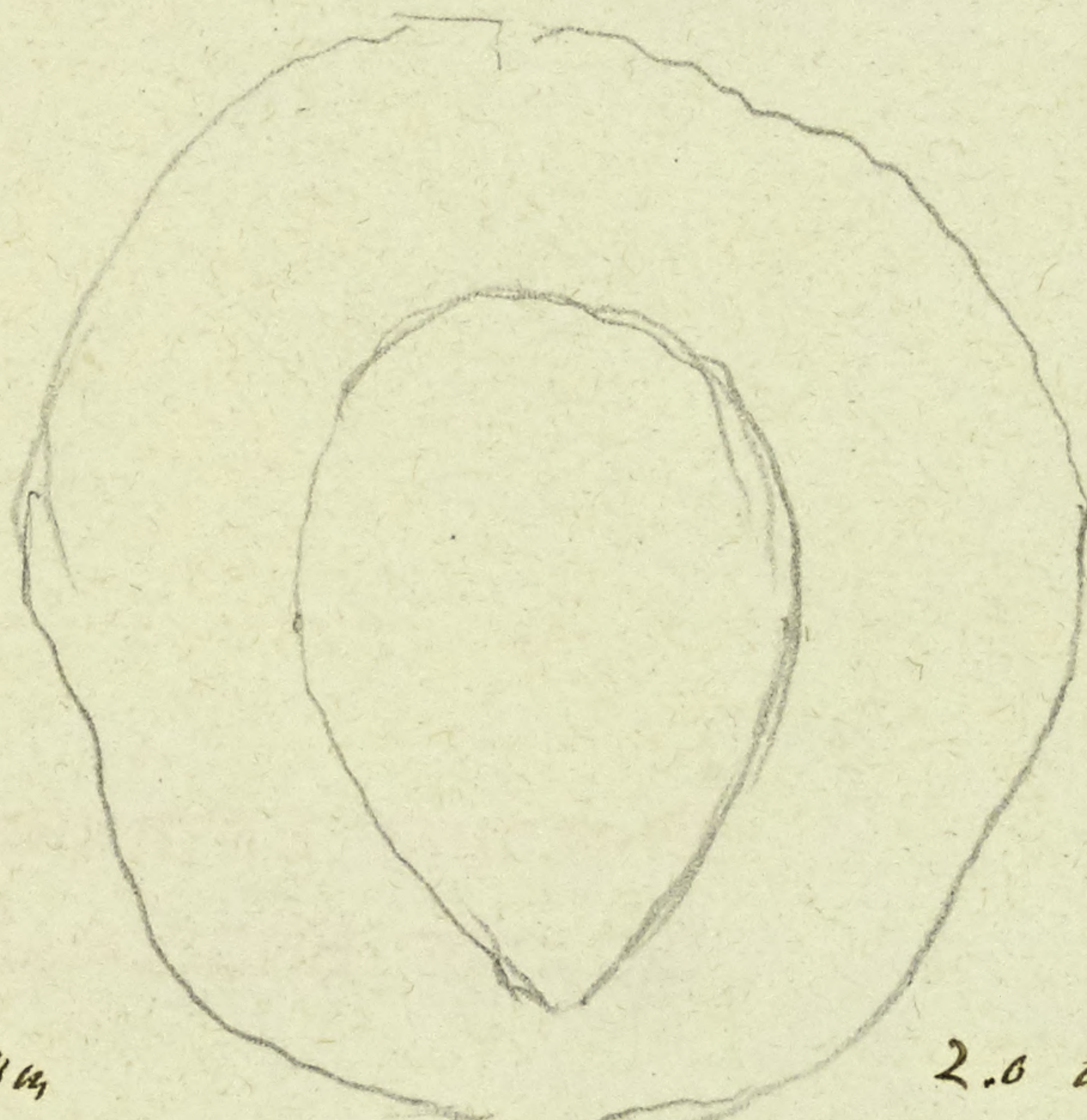
1.2 mm

Colondo, Patterson
Middle Park



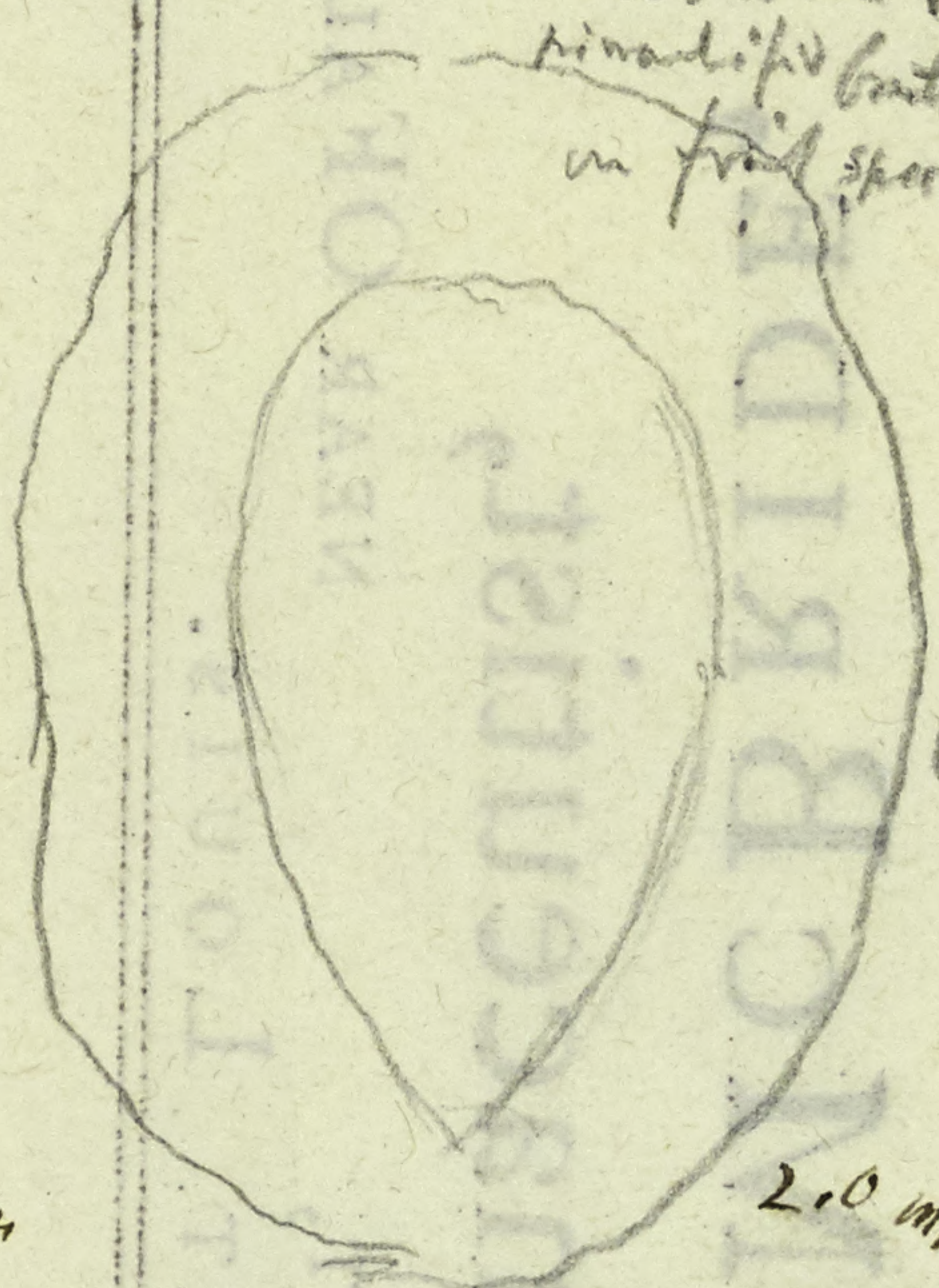
2.0 mm

manvander Zenn
Hayden



2.0 mm

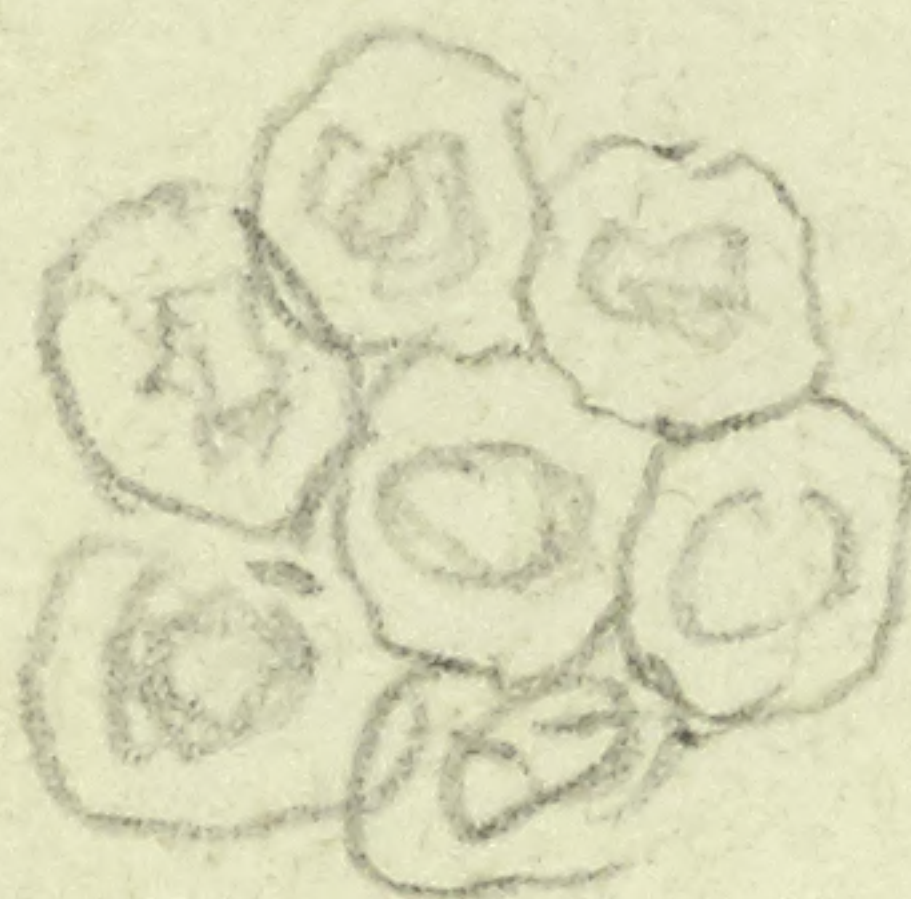
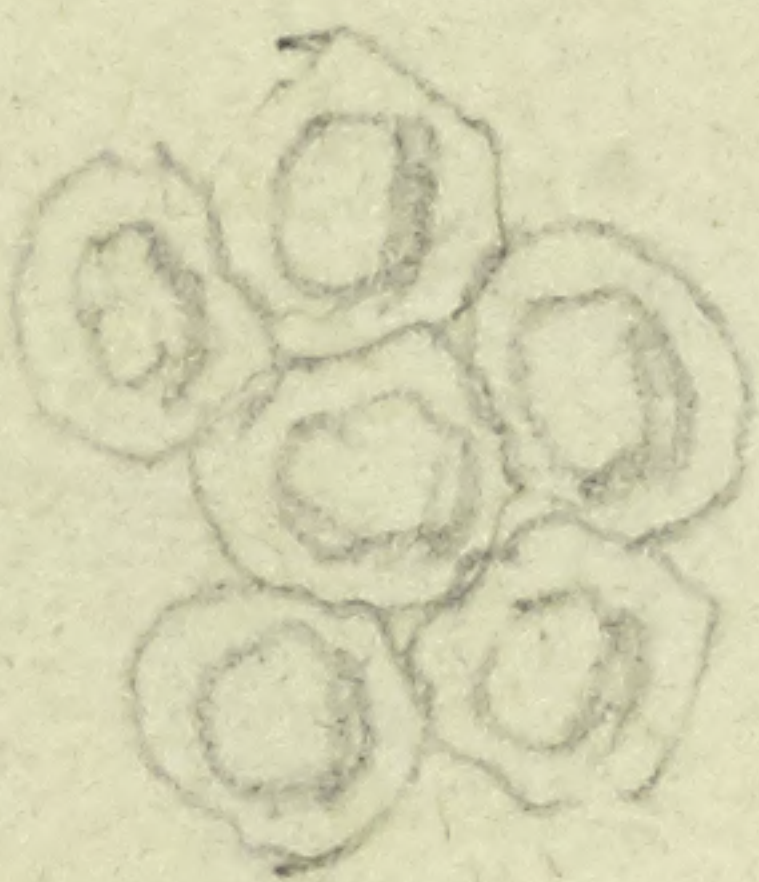
Texas Lindheimer



2.0 mm

Fendler N. M. &
242

x150



0

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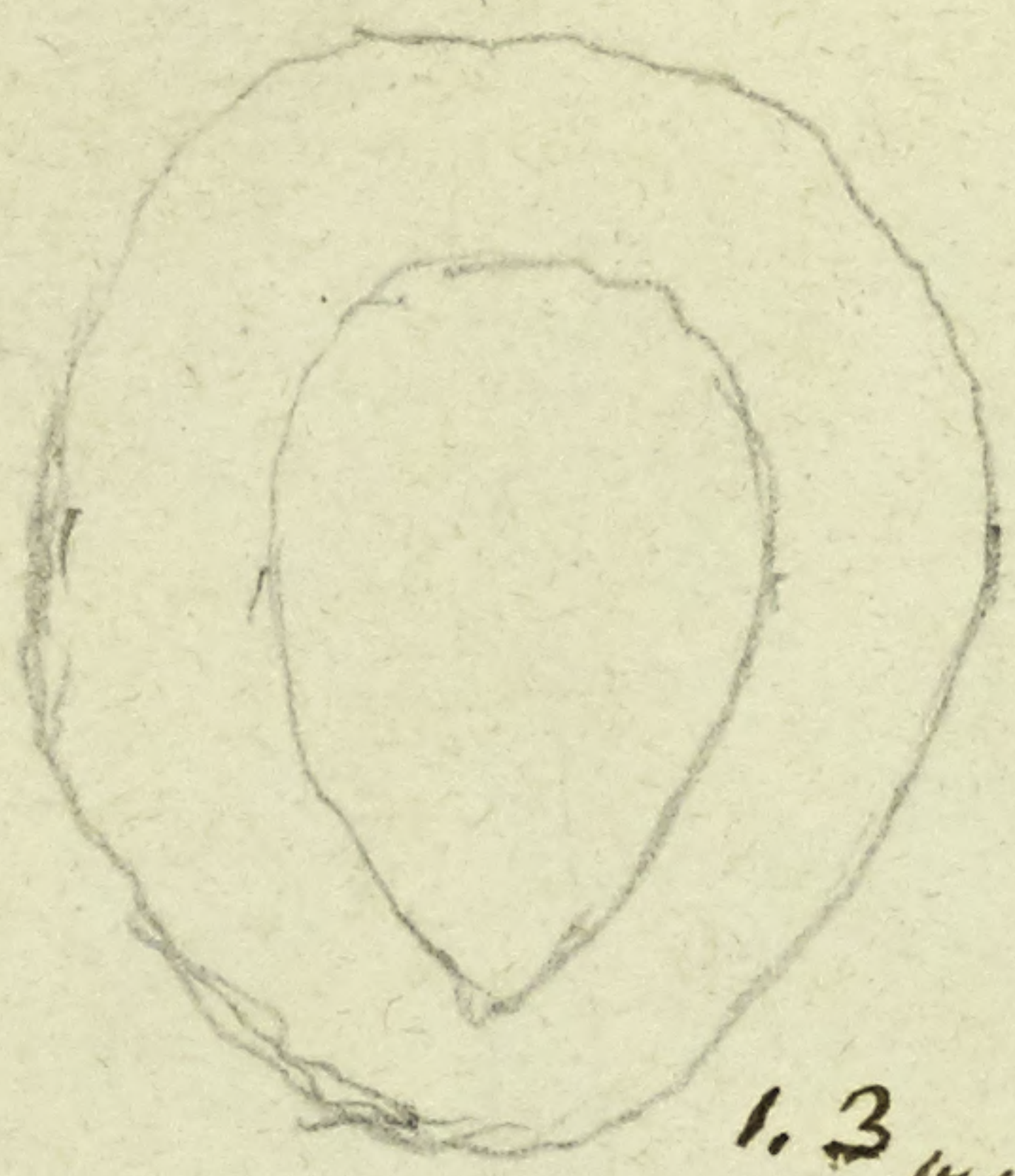


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Munzella seeds X18

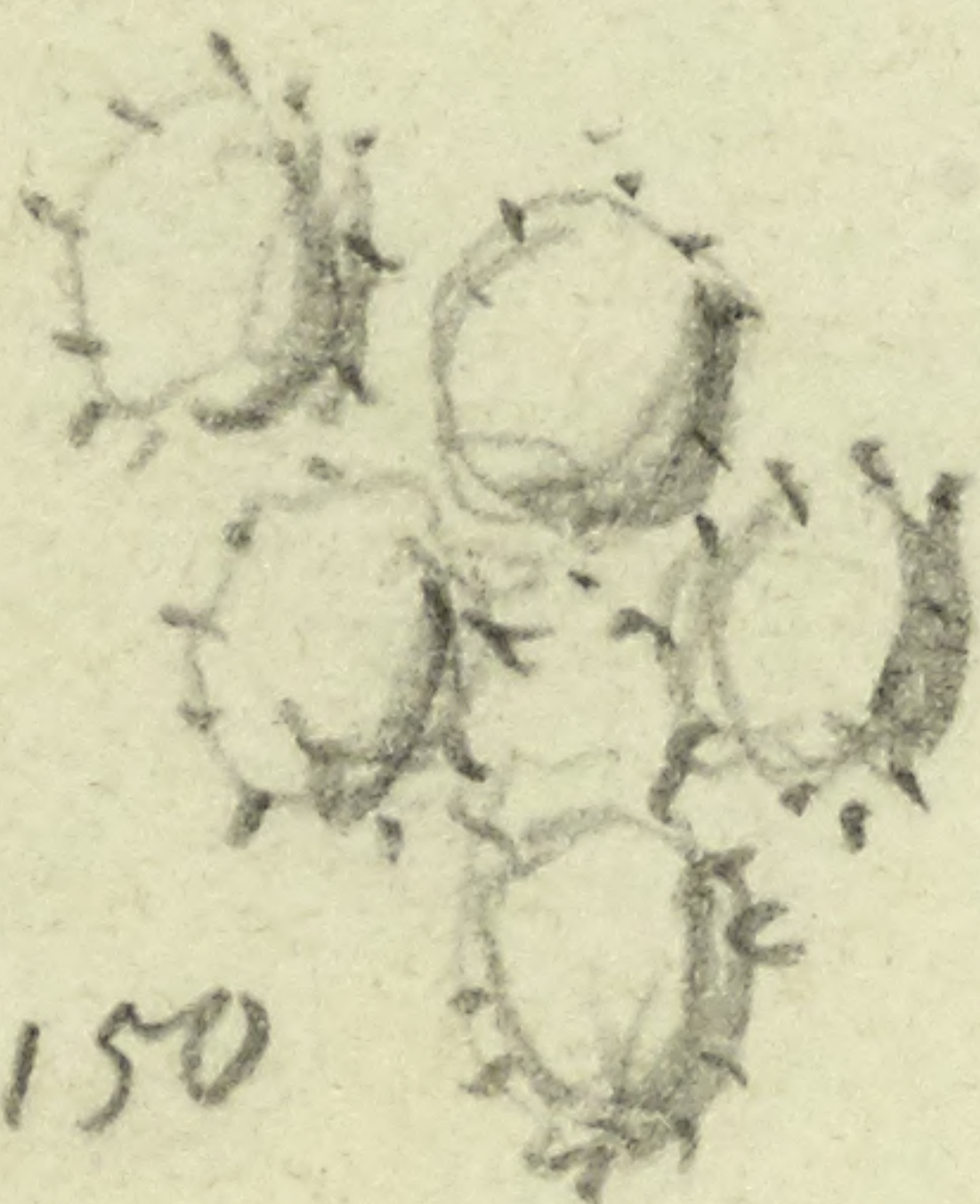
March 3 1882

multiflora



1.3 mm

M. multiflora
M. Wright 213
El Paso
small form



X150

marks of
seeds of munda



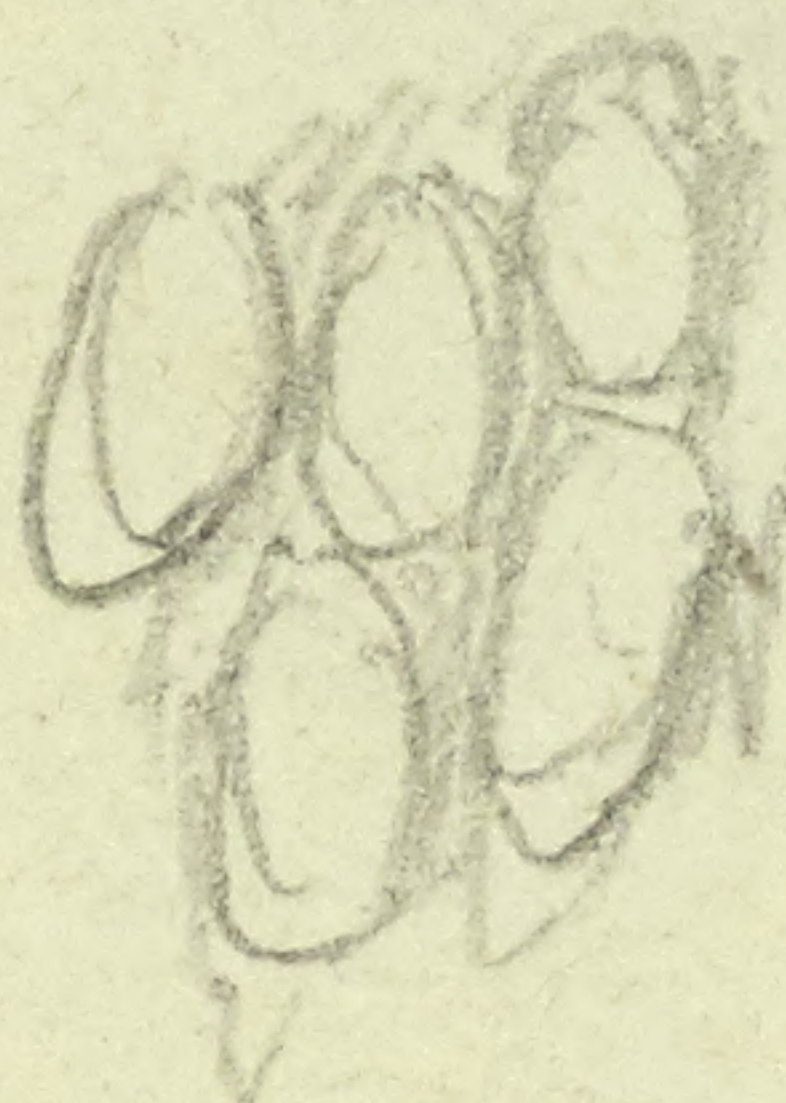
2.0 mm

Munzella Gregg
No 50



2.2 mm

Munzella Gregg
No 101



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JAMES MCBRIDE



0 1 2 3 4 5 6 7 8 9 10

cm

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cm

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Menziesia Anther Pollen Seed

<i>ornata</i>	anther 2.4 ^{mm}	0.040-45 ^{um}	2 mm	narrow wing
<i>laevicaulis</i>	2.5	0.042	1.7 mm	1
<i>undulata</i>	2.0	0.043	2 mm	1/4
<i>nuda</i>	Texas 1.5	0.030		broad wing
	Missouri 1.5	0.029		
	Canton City 1.8	0.029	2.1	
	Texas		2.1	
<i>multiflora</i>	anther 1.4	0.030	2 -	1/4
	Grape Creek 1.0	0.024	1.5	
	var. Wright		1.3	
	Missouri Gray 1.4	0.037	2.0 - 2.2	
<i>chrysantha</i>	1-1.3	0.026-27	1.5	no wing
<i>pumila</i>	1.1	0.028	1.2	narrow wing
<i>yellow</i>	1.3	0.033	1.3	rather narrow wing



0 1 2 3 4 5 6 7 8 9 10

cm

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meine von moirung gährte Komme
muss doch etwas oder zu haben.
Die ichnung zu diesem von 9. 10. M
bis 5 Uhr. Ich aber abends 6 Uhr
komme von 10 gr Thun.
Sollte die aneinen dass ich mach
haupte, so sollte ich mir einen Kuchling
müssen zu geben, der ehlich gewinn
ist verdienstlich und hnung
Zurück fließen



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cm

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